

From: [McCormack, Craig \(ECY\)](#)
To: Kissinger.Ion@epamail.epa.gov
Subject: FW: LDW LDWG questions on MNR and Fish Tissue
Date: Thursday, January 03, 2013 9:29:09 AM
Attachments: [LDW Fish Tissue Questions Tech Memo 13Dec2012.docx](#)
Importance: High

Hi Lon: in addition to briefing you on FC related activities I wanted to discuss Ecology's responses to some compliance monitoring issues for the Lower Duwamish – my proposed response to a specific question is noted in red font and highlighted in yellow:

Issue Statement: EPA is establishing 'Fish Tissue' PRGs because they are necessary for a Final ROD. LDWG wants to know under what regulatory authority these would be established.

1. Are Fish Tissue PRGs an ARAR under MTCA or SMS?

Answer: Yes, **but fish tissue biomonitoring is not the only compliance monitoring requirement.** Under MTCA, exposure to the contaminants from eating fish and shellfish is a pathway that needs to be considered. In addition to regulating surface water and sediment concentrations to control toxic chemical uptake in the organisms being consumed, the organism **tissue concentrations can be directly regulated through established CULs/PRGs that are based upon daily human consumption rates.** Until it can be demonstrated that a human health threat no longer exists at an expected consumption rate, tissue concentrations are not in compliance. Demonstrating that the contaminants within the fish and shellfish have reached acceptable levels can only be done through fish tissue testing (WAC 173-340-730(7)(f)).

Also, further authority is provided through the revised SMS rule, WAC 173-204-560(6) (compliance monitoring) which states the department may use fish tissue analysis to evaluate compliance with sediment cleanup standards.

Observation in response to fish tissue monitoring: Sediment compliance monitoring requirements should not be exclusively based on analytically determining fish tissue contaminant concentrations. Sediment compliance monitoring requirements should consider reduced sediment contaminant concentrations over time and should specify the types of sediment contaminants considered when implementing, maintaining, and enforcing compliance. The expectation that fish tissue concentrations for selected persistent and bioaccumulative contaminants (PCBs, dioxins, PBDEs) are going to be reduced within a 10 year compliance time frame is problematic (probably not realistic) due to global patterns of contaminant deposition, sediment recontamination from multiple sources, persistence within sediments and fish/shellfish tissue, dependence on fish/shellfish species monitored, and complexity of relating specific sediment contaminants with fish/shellfish contaminant body burdens.

From: Bradley, Dave (ECY)
Sent: Thursday, January 03, 2013 8:36 AM
To: McCormack, Craig (ECY); Hankins, Martha (ECY); Asher, Chance (ECY)
Subject: FW: LDW LDWG questions on MNR and Fish Tissue
Importance: High

I know you are all busy. So I apologize for piling on more work.

However, could you take a look at the attached responses to some LDWG questions on fish tissue testing and MNR and let me know if you have any thoughts. Perhaps we can meet tomorrow morning/early afternoon.

I will have Elaine look for a time.

From: Warren, Bob (ECY)
Sent: Thursday, January 03, 2013 8:30 AM
To: Bradley, Dave (ECY)
Subject: FW: LDW LDWG questions on MNR and Fish Tissue
Importance: High

Dave – I sent you some questions from Lower Duwamish Waterway Group and asked for your input. Attached is our first draft at addressing these questions.

Can you please review these questions, our internal responses and provide your input to each?

I will need to get our draft responses back the LDW Group by Tuesday of next week.

Thank you!

Bob

Robert W. Warren, P.Hg., MBA
Northwest Regional Office Section Manager
Toxics Cleanup Program
425-649-7054

From: Smith, Andrew (ECY)
Sent: Thursday, January 03, 2013 7:39 AM
To: Warren, Bob (ECY)
Subject: FW: LDW LDWG questions on MNR and Fish Tissue

Here you go Bob. I will keep you posted with comments from Nels and Ivy.

Andrew Smith, PE
Senior Environmental Engineer

Project Coordinator for Lower Duwamish Waterway Site
Department of Ecology
Bellevue, Washington
Phone 425-649-7138

From: Bardy, Louise (ECY)
Sent: Thursday, December 13, 2012 4:26 PM
To: Warren, Bob (ECY)
Cc: Smith, Andrew (ECY); Timm, Ronald W. (ECY)
Subject: LDW LDWG questions on MNR and Fish Tissue

Bob,
Andy and Ron drafted this memo to help you respond to LDWG. Let us know if it reads clearly for you. We are all here Friday and can make edits.

Louise

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